

Work-related stress and well-being of direct care workers in intellectual disability services: a scoping review of the literature

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Background: Understanding the nature of work-related stress and burnout among intellectual disability care staff is important to protect the well-being of these workers and encourage their retention in the sector. Though reviews of specific aspects of this literature have been conducted no article has sought to fully chart the range and nature of this research.

Objective: This article addresses this gap by synthesizing the findings of such research with consideration to the future implications for protecting the well-being of care workers.

Methods: A scoping review of the published literature was undertaken using a framework described in a previous article.

Results: The findings of this review are presented thematically across six primary categories: challenging behavior; reciprocity; coping and stress; role issues; individual differences; and settings. A seventh theme, namely the positive aspects of intellectual disability care work was also identified through this process and is discussed.

Conclusion: Occupational stress and strain is an internationally experienced issue in this sector. Challenging behavior and inequality in the relationships between staff and their clients, their colleagues, and their organization appear to exert a significant impact on the stress and well-being of workers in this sector. Excessive workplace demands, a low level of control, and a lack of support have been shown to be related to higher levels of stress and burnout among intellectual disability care workers.

Keywords: Burnout, well-being, stress, learning disability, intellectual disability, intellectual development disorder

Background

Professional staff who provide direct care and support to persons with an intellectual disability (ID) comprise a valuable component of the social economy (Wells *et al.* 2011). Commonly identified challenges of working in intellectual disability care sector include low income (Chung and Corbett 1998, Conradie *et al.* 2017, Hatton and Emerson 1993); a lack of training (Hussein 2017), the perceived low status of workers (Vassos and Nankervis, 2012) and long contracted hours (Hatton *et al.* 1999; Judd *et al.* 2017). Care staff have also highlighted problems relating to a lack of decision-making; endangerment of physical health and safety issues; and pressure and uncertainty of employment (Corrigan 1993, Rose and Cleary 2007). These are in addition to issues such as the challenging behavior of the service

users; unrealistic expectations from family members of service users; and a lack of teamwork and communication between staff members and superiors (Mascha 2007, Inland *et al.* 2018).

A number of reviews of specific aspects of this literature have been conducted. For example, Hastings (2002) reviewed the literature as it related to the relationship between staff stress and exposure to challenging behavior; identifying that negative staff emotional reactions may mediate this relationship. White *et al.* (2006) considered recent trends in the literature, while Skirrow and Hatton (2007) reviewed the literature as it related to levels and correlates of burnout of among care workers of adults with intellectual disability. Disley *et al.* (2009) discussed six studies which found that perceived inequality in working relationships was associated with increased burnout; absenteeism; and intention to leave in intellectual disability care workers. Devereux *et al.* (2009) reviewed the application of

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theories of work-related stress within intellectual disability research, while Thompson and Rose (2011) reviewed the impact of organizational climate upon burnout among those who work with persons with intellectual disability. Finally, Rose (2011) reviewed the literature with regard to staff psychological factors and their relationship to client outcomes in residential care. To date, however no article has sought to fully synthesize this research and chart the state of the art of the literature as it stands. Thus, the focus of this article was to determine what is currently known about the work-related stress, burnout, and well-being of direct care workers in intellectual disability services.

Methods

A scoping review framework was employed as the methodological tool for this study. The aims of this review fell broadly in line with that described by Daudt *et al.* (2013); i.e. to ‘map the literature on a particular topic or research area and provide an opportunity to identify key concepts, gaps in the research; and types and sources of evidence to inform practice, policy-making, and research’ (pg. 44). The review process was based upon the following five steps espoused by Arksey and O’Malley (2005):

Stage 1: identifying the research question.

Scoping reviews typically seek to answer a broad question through a specified scope of inquiry (Arksey and O’Malley 2005). The processes of identifying the research question for this review was quite iterative and was developed throughout the review process as the authors becomes increasingly familiar with the literature. The research question that was addressed by this review was: what is currently known about the work-related stress, burnout, and well-being of direct care workers in intellectual disability services? As such, the aim of this review was chart the range and nature of this research and synthesize thematically the findings with consideration to the implications for protecting the well-being of care workers. With regard to stress and well-being, we took a broad approach and focused on studies which explored or investigated both potential causes and manifestations of stress, including but not limited to relationship issues; ill-health and/or injury; negative staff perception of their environment; reported challenges; and coping strategies and symptoms of emotional strain, (e.g. angry outbursts, defensiveness, lack of sleep, decreased exercise, and social isolation). However, we also acknowledged that work and stress can produce beneficial outcomes (e.g. achieving results, learning new skills, and fostering a sense of purpose) and so incorporated these within the scope of our review. With regard to burnout, we focused on the definition proposed by Maslach *et al.* (1986) as a psychological syndrome which emerges as a result of exposure

to chronic stress and characterized it by the three domains emotional exhaustion, depersonalization, and a lack of personal accomplishment.

Stage 2: identifying relevant studies.

Scoping reviews, in contrast to more stringent or narrow systematic reviews, tend to focus on identifying all relevant literature in a particular area and so include a range of study designs. In to that end, a systematic literature search was conducted by searching the following electronic databases from 1 January 1990 to 1 February 2018:

- Academic Search Complete
- CINAHL
- PsycINFO
- Medline
- Web of Science

The start date of 1990 was chosen to ensure that the scope of the review was relatively recent. Variations of the following search terms were combined to identify papers for review: ‘Burnout;’ ‘Well-being;’ ‘Stress;’ ‘Learning disability;’ ‘Intellectual disability;’ ‘Intellectual development disorder;’ ‘Mental retardation;’ ‘Care staff;’ ‘Carer;’ and ‘Support worker’. Studies which included staff working in secure and community services for people with intellectual disabilities were included. Similarly, studies which examined more than one client group (e.g. intellectual disability and brain injury) were included only if the majority of participants were working with persons with intellectual disabilities. The following inclusion and exclusion criteria were applied:

Inclusion criteria

- Participants working in services for people with intellectual disabilities, including residential, hospital, secure institutional, community, and day care services;
- The majority of participants were working with persons with intellectual disabilities;
- Participants recruited from working populations, over 18 years of age; and
- Papers published in English.

Exclusion criteria

- Review papers, meta-analyses, or meta-synthesis,
- Papers not published in English, and
- Participants not recruited from working populations or not working with persons with intellectual disabilities.

Stage 3: study selection.

The initial search output returned 11,388 articles. Following title and abstract screening 9611 articles were removed due to not meeting inclusion criteria or duplication. The full texts of the remaining articles were retrieved and screened, from which 1177 papers were excluded after further assessment. This left a total

of 53 articles that were included in the final review. One review author (CR) independently selected the studies to include in the review according to the inclusion and exclusion criteria. A search of the reference lists for additional references in all identified primary studies was also conducted. The reference lists of key reviews were also searched. A total of 23 additional articles that met inclusion criteria were identified through this process and are included in this review. The final review therefore included a total of 84 papers, describing 85 studies.

Stage 4: charting the data.

As with the process of identifying the research question, this part of the review was quite iterative as a descriptive analytical approach was taken to charting the literature. This involved firstly conducting a practical overview of the research, in which information relation to the study authors; participants; country; design; research aim; and findings were extracted and is charted in Table 1. This was then followed by a type of thematic review of the literature, which is detailed in the results section of this paper.

Stage 5: Collating, summarizing, and reporting the results.

The aim of the final stage of this review was to provide an overview of all available evidence as it related to the work-related stress and well-being of direct care workers in intellectual disability services. These findings are presented thematically across six primary categories: challenging behavior; reciprocity; coping and stress; role issues; individual differences; and settings. These themes were generated during the process of charting and analyzing the data and are presented in the following section. A seventh theme, namely the positive aspects of providing care and support to persons with an intellectual disability, was also identified through this process and is detailed at the end of this section of the article.

Results

A total of 78 articles, describing 79 studies, were included in the final review. The majority of the studies utilized cross-sectional correlational designs, though two longitudinal studies were also identified and included. Two studies used mixed methods research while one comprised a purely qualitative study. Most of the participants were recruited from either residential (43%) or community care settings (39%). A small number were recruited from a mix of hospital and community settings (10%), or residential and community settings (9%). One hospital-based study, one study based at summer camp, and one study situated in a social welfare center were also included.

In terms of describing participants, a range of job titles (including, for e.g. disability support workers; direct care workers/staff; intellectual disability workers; hospital staff; staff in developmental/learning disability services, and residential care staff) were used by the study authors. In addition seven studies recruited registered intellectual disability nurses exclusively. For the sake of clarity and consistency, we utilized the terms 'staff' and 'direct care workers' to refer to such participants in the remaining of this article.

Challenging behavior

Much research has investigated the relationship between exposure to challenging behavior and staff well-being within the intellectual disability sector. Two distinct strands have emerged to date. On the one hand, several studies have reported a direct relationship between exposure to challenging behavior, including violence and aggression, and increased levels of staff stress and burnout in intellectual disability services (e.g. Chung and Harding 2009, Freeman 1994, Judd et al. 2017, Vassos and Nankervis 2012). Exposure to challenging behavior from clients is related to increased staff anxiety (Jenkins et al. 1997), work stress (Gingi 2012, Hatton et al. 1995), and burnout; including emotional exhaustion (Lundström et al. 2007; Ko et al. 2012, Smyth et al. 2015) and negative physical and emotional responses among staff (Kile 2014, Koritsas et al. 2010, Raczka 2005). Kozak et al. (2013) for example, in a sample of care workers in a residential facility found a significant association between personal burnout and perceived stress due to client aggression, while Jenkins et al. (1997) identified that staff who worked in community based houses where clients displayed challenging behaviors were found to be more anxious; felt less supported; were less clear about the identification of risky situations; and reported lower job satisfaction compared to staff in houses with no reported challenging behaviors.

Although challenging behavior is a frequently cited source of stress for those engaged in intellectual disability care work, the relationship between challenging behavior and worker stress and burnout is not unequivocal and a number of variables may mediate it (Hastings 2002, Howard and Hegarty, 2003; Mills and Rose 2011, Shead et al. 2016). Howard et al. (2009), for example, found that the relationship between exposure to physical violence and burnout was moderated by self-efficacy, in that as self-efficacy increased the strength of this relationship decreased, while higher self-efficacy for dealing with aggression was associated with increased personal accomplishment. The following section reviews a body of research that has focused on the identification of variables which may moderate or mediate the relationship between exposure to challenging behavior and staff well-being. These include

Table 1. Study Authors; Design and Key Findings.

Authors, methods, sample	Country	Study Title	Summary of findings
Aitken and Schloss (1994); Quantitative, <i>n</i> = 150.	Australia	Occupational stress and burnout amongst staff working with people with an intellectual disability.	Burnout and stress found to be higher in institutional settings compared to community settings.
Alexander and Hegarty (2000); Quantitative, <i>n</i> = 13.	United Kingdom	Measuring staff burnout in a community home.	Both staff groups reported moderate stress/burnout; Senior staff higher in emotional exhaustion and depersonalization. Day care reported shortage of staff; medical problems (back pain); shift work; morale; working with others, and feeling 'always on'. Senior staff reported demands; bad attitude; medical administration; staff issues; autonomy; and demands from others.
Bailey <i>et al.</i> (2006); Quantitative, <i>n</i> = 27.	United Kingdom	The response to challenging behavior by care staff: emotional responses, attributions of cause, and observations of practice.	Colleagues/supervision were main source of support. Care staff's internal, stable and uncontrollable attribution of challenging behaviour (including self-injury) related to negative emotion responses. Did not support Weiner's (1988) model of attribution. Clear relationships were not found between the care staff attributions, emotions, optimism, willingness to help, and observed helping behaviours.
Blumenthal <i>et al.</i> (1999); Quantitative, <i>n</i> = 106.	United Kingdom	Role clarity, perception of the organization and burnout amongst support workers in residential homes for people with intellectual disability: a comparison between a National Health Service trust and a charitable company.	Constructed a measure of role clarity and perception of the organization, and the use of the Maslach Burnout Inventory (MBI). Most support workers regarded their role as being clear and their levels of burnout to be comparable with UK nursing norms. Charity staff were more likely to view their organization positively and rated their emotional exhaustion as significantly lower than NHS trust staff.
Bromley and Emerson (1995); Quantitative, <i>n</i> = 70.	United Kingdom	Beliefs and emotional reactions of care staff working with people with challenging behavior.	Significant proportion of colleagues reported to display emotional reactions such as sadness, despair, anger, annoyance, fear, and disgust to episodes of challenging behaviour The 'daily grind' of caring, difficulty in understanding the person's behaviour, the unpredictability of the behaviour, and the apparent absence of an effective way forward most stressful aspects. Causes of challenging behaviour attributed to internal psychological, broad environmental, and behavioural and medical factors.
Chung <i>et al.</i> (1996); Quantitative, <i>n</i> = 26.	United Kingdom	Relating staff burnout to clients with challenging behaviour in people with a learning difficulty: Pilot study 2.	Burnout among care workers more related to management issues at work rather than client issues.
Chung and Corbett (1998); Quantitative, <i>n</i> = 26	United Kingdom	The burnout of nursing staff working with challenging behaviour clients in hospital-based bungalows and a community unit.	Nurses in hospital-based units experienced more severe challenging behaviour, complained more, were less satisfied with pay, experienced less client contact, were more likely to feel their training was inadequate, and experienced more emotional exhaustion and depersonalisation than those based in community units.
Chung and Harding (2009); Quantitative, <i>n</i> = 103.	United Kingdom	Investigating burnout and psychological well-being of staff working with people with intellectual	Higher neuroticism predicted higher levels of emotional exhaustion and lower personal accomplishment.

(Continued)

Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
		disabilities and challenging behavior: the role of personality	Converse found for extraversion. Higher conscientiousness predicted higher levels of depersonalization (moderated by agreeableness) while neuroticism and extraversion moderated the relationship between challenging behaviour and personal accomplishment.
Conradie <i>et al.</i> (2017); Quantitative, $n = 89$.	South Africa	A profile of perceived stress factors among nursing staff working with intellectually disabled in-patients at the Free State Psychiatric Complex, South Africa.	The occupational stressors identified by this cohort were workload and long hours; lack of decision-making; underpayment; endangerment of physical health and safety issues; pressure; uncertainty of employment; responsibility; and perceiving that their skills/training not appreciated.
Corrigan (1993); Quantitative, $n = 322$.	United States	Staff stressors at a developmental center and state hospital.	Factor analysis of stress revealed lack of admin control and practice related stress. Opposition to behavior therapy predicted job stress. Difference in stress by job category – higher in nurses, developmental specialists, and psychiatric technicians.
Dagnan <i>et al.</i> (1998); Quantitative, $n = 40$.	United Kingdom	Care staff responses to people with learning disabilities and challenging behavior: A cognitive–emotional analysis.	Those working with people with challenging behavior more likely to evaluate the person more positively and report they would be more likely to offer extra effort in helping. Helping behavior best predicted by optimism, which was best predicted by negative emotion which was best predicted by the attribution of controllability.
Devereux <i>et al.</i> (2009a) Quantitative; $n = 96$.	United Kingdom	Social support and coping as mediators or moderators of the impact of work stressors on burnout in intellectual disability support staff.	Social support at work moderated relationship between workplace demands and personal accomplishment. Higher demands related to greater emotional exhaustion (partially mediated by 'wishful thinking'). Practical coping did not effect relationship but was predictive of personal accomplishment. Longitudinal analysis did not find that perceived work demands, wishful thinking, or practical coping predicted emotional exhaustion over time.
Dilworth <i>et al.</i> (2011); Quantitative, $n = 43$ care managers and $n = 139$ care staff.	United Kingdom	Factors relating to staff attributions of control over challenging behavior.	Challenging behavior attributed as being less under personal control if the organisation was of better quality. Attributions of control lower if staff displayed positive attitudes towards the client, the physical and social environment was appropriate and the overall approach to delivering care seemed well-structured. No relationship between attributions of control and ability of the individual or the overall level of challenging behavior.
Dyer and Quine (1998); Quantitative, $n = 80$.	United Kingdom	Predictors of job satisfaction and burnout among the direct care staff of a community learning disability service.	Role conflict; role ambiguity; and role overload as prominent demands placed upon staff in an NHS learning disability service. Lack of participation in decision-making as a significant demand placed encountered by staff in a learning disability service.
Edwards and Miltenberger (1991); Quantitative, $n = 125$.	United States	Burnout among staff members at community residential facilities for persons with mental retardation.	Moderate degree of burnout reported by both direct care workers and supervisors.

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Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Freeman (1994); Quantitative, $n = 89$ from Time 1–2; $n = 71$ from Time 2–3.	United Kingdom	The differential impact on carers dealing with clients with challenging behaviours.	Supervisors reported higher burn-out (greater emotional exhaustion) and less personal accomplishment. Carers socialised in a traditional setting responded to challenging behaviours by becoming more negative in their attitudes towards clients. Strain related directly to challenging behaviours and unrelated to attitudes which remained positive.
Ford and Honnor (2000); Quantitative, $n = 115$.	Australia	Job satisfaction of community residential staff serving individuals with severe intellectual disabilities.	Staff held moderately favourable views toward their jobs, with work satisfaction reported in interactions with residents and families, the nature of the work itself, and supportive relationships with co-workers. Involvement in decision-making, opportunities for advancement, feelings of isolation, utilization of skills, and lack of feedback on performance were reported as challenges. Little relationship between demographics and job satisfaction.
Figueiredo-Ferraz et al. (2012); Quantitative, $n = 422$; Longitudinal with one year follow up (2015), $n = 372$	Spain	Influence of some psychosocial factors on mobbing and its consequences among employees working with people with intellectual disabilities.	Mobbing – interpersonal aggression and intention to harm between workers. Role clarity and social support at work can play a role in preventing mobbing, while role ambiguity can encourage it. Significant consequences for employee health (psychosomatic well-being and predicts absenteeism). Longitudinal study found that mobbing had a longer term impact on depressive symptoms – significantly higher depressive symptoms at Time 2 compared to those who did not experience at Time 1 or 2 or just a Time 2.
Gil-Monte (2012); Quantitative, $n = 700$.	Spain	The influence of guilt on the relationship between burnout and depression.	Guilt defined as unpleasant/remorseful feeling associated with violating a moral standard. Guilt found to moderate relationship between depersonalisation and depression, may have role in burnout process.
Gingi (2012); Quantitative, $n = 127$.	South Africa	Responses of nurses to violence from adults with ID in an in-patient psychiatric facility.	Inclusion criteria was involved or having witnesses violence directed at a nurse. Response distributed across avoidance, introversion, and hyperarousal, 82.75% of the nurses in this sample fitted the symptoms of Post Traumatic Stress Disorder. Over 80% scored moderately to very highly on scores of resilience.
Gray-Stanley and Muramatsu (2011); Quantitative, $n = 323$.	United States	Stress, burnout, and social and personal resources among direct care workers in community ID.	Work-overload, limited participation in decision making, and client disability care associated with increased burnout. Low social support related to increased burnout when workload was high. Internal control beliefs reduced feeling of burnout when participation in decision making was limited (reverse for external control beliefs).
Gray and Muramatsu (2013); Quantitative, $n = 323$ (follow-up)	United States	When the job has lost its appeal: intention to quit in direct care workers.	Increased social support associated with lower intention to quit. Relationship between control and intention to quit moderated by lack of participation in decision making.
Harries et al. (2015); Quantitative, $n = 97$	Australia	Evaluation of the Work Safety and Psychosocial Wellbeing of	The JDCA model components did not all predict any single wellbeing

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Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
		Disability Support Participants experienced significantly higher personal and work-related burnout but significantly lower client-related burnout compared to population norms.	measure. However they each predicted individual aspects of burnout and job satisfaction. Well-being measures were associated with safety performance. The negative impact of Role Conflict were effectively moderated by support for personal and work-related burnout and job satisfaction.
Hatton and Emerson (1993); Quantitative, $n = 64$.	United Kingdom	Organizational predictors of perceived staff stress, satisfaction, and intended turnover in a service for people with multiple disabilities.	Support from other staff (mainly supervisory), job variety, perceived organization, democracy, goodness of fit b/n attitude and aims of staff and those of organization, staff development, and income.
Hatton et al. (1995); Quantitative, $n = 68$	United Kingdom	Stressors, coping strategies, and stress-related outcomes among direct care staff in staffed houses for people with learning disabilities.	Work stress predicted by emotional impact of work, violent behavior, and wishful thinking. General distress related to conflict of work with personal/family life. Stress, uncertainty with tasks, and limited opportunity for advancement all had a high impact on work stress.
Hatton et al. (1999); Quantitative, $n = 450$.	United Kingdom	Factors associated with staff stress and work satisfaction in services for people with intellectual disability.	Wishful thinking; work-home conflict and role ambiguity predicted stress. Job strain related to wishful thinking, lack of support, alternative commitment, role ambiguity, low status of job, and longer hours. Satisfaction related to low status of work, support from colleagues and supervisors; alternative commitment; and older staff age.
Hatton et al. (2001); Quantitative, $n = 450$ (as previous).	United Kingdom	Factors associated with intended staff turnover and job search behavior in services for people with intellectual disability.	Work satisfaction, job strain, younger staff age and subjective labor conditions were directly associated with intended turnover. The same factors, with the exception of younger staff age, were also directly associated with job search behavior.
Hensel (2012, 2014); Quantitative, $n = 926$ and $n = 42$ matched pairs.	Canada	The mediating effect of severity of client aggression on burnout between hospital inpatient and community residential staff who support adults with intellectual disabilities.	2012 article found that nearly all reported exposure to aggression in previous six months. Aggression related to burnout (emotional exhaustion and depersonalization). 2014 study found hospital staff experienced more severe aggression and were more emotionally exhausted than community staff. Partially mediating effect of severity of aggression in hospital and community – more severe, more emotionally exhausted.
Hickey (2014); Quantitative, $n = 1570$.	Canada	Prosocial motivation, stress, and burnout among direct support workers.	Prosocial motivation may moderate or buffer against burnout among direct care workers. Depersonalization scores lower for staff with high motivation, this was especially pronounced in cases where staff had high emotional exhaustion. Depersonalization higher among staff with high role boundary stress in case of low motivation. Increased role ambiguity stress associated with lower personal accomplishment in case of lower motivation.
Howard and Hegarty (2003); Qualitative, $n = 6$	United Kingdom	Violent Incidents and Staff Stress Content analysis of semi-structured interviews identified seven key themes relating to The physical force of violence.	Staff reactions to violence; Acceptance of violence; The importance of support; Coping strategies used by staff; Effect of violence on the relationship

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Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Howard <i>et al.</i> (2009); Quantitative, $n = 44$ in medium security and $n = 38$ in community services.	United Kingdom	The psychological impact of violence on staff working with adults with intellectual disabilities.	between staff and students and Mediators of the staff reaction to violence. Lower fear of violence and higher self-efficacy in medium secure staff. Burnout related to increased exposure to physical violence and reduced staff support. Higher threat of violence related to lower fear. Higher support related to lower emotional exhaustion; higher self-efficacy related to higher personal accomplishment. More physical/verbal aggression related to increased emotional exhaustion, verbal aggression also related to reduced personal accomplishment. Physical violence related to burnout but self-efficacy moderated relationship.
Hussein (2017); $n = 196$ who provided both qualitative and quantitative responses.	Australia	Perspective of support challenges in rural versus urban workers for adults with ID (medical, health, and support workers).	Only 23.7% felt they had adequate training. Lack of services and poor carer health were triggers for institutionalization.
Ineland <i>et al.</i> (2018) Quantitative, $n = 333$.	Sweden	Sources of job satisfaction in intellectual disability services: a comparative analysis of experiences among human service professionals in schools, social services, and public health care in Sweden.	Majority experienced heavy workload and psychological strain, though majority also experience high job satisfaction (plurality). Sources of stress were target group; social environment, social relations, professional core mission; and results/outcomes. Content analysis revealed that sources of job satisfaction irrespective of organization, is categorized in five different core categories; target group, social rewards, social relations, professional core mission, and results/outcomes.
Ito <i>et al.</i> (1999); Quantitative, $n = 3774$	Japan	Burnout among direct-care staff members of facilities for persons with mental retardation in Japan.	Burnout higher among direct care staff compared to facility director or middle managers. Burnout was lower among staff who felt that they could consult supervisors about work or personal problems compared to those who felt they could not.
Jenkins <i>et al.</i> (1997); Quantitative, $n = 78$.	United Kingdom	Psychological correlates of well-being in direct care staff in services for children with intellectual disabilities and challenging behaviour.	Higher anxiety among staff working in houses where clients had challenging behaviors – also felt less supported, less clear about identifying risky situations and lower job satisfaction. No difference in demand or depression. Challenging Behavior emerged as the best predictor of anxiety, with job demands second best predictor. Together, these accounted for 21% of the variance. Depression was the best predictor of staff support.
Judd <i>et al.</i> (2017); Qualitative, $n = 12$.	Australia	Workplace stress, burnout, and coping: a qualitative study of the experiences of Australian disability support workers.	Theme of balance identified, relation to positive, and negative experiences of work, managing periods of imbalance and strategies to reclaim balance. Rewards included seeing client develop new skills and express appreciation for work. Challenges were challenging behavior, low income, and limited decision making power. Sought support and developed own strategies to manage.
Jenkins <i>et al.</i> (1997) Quantitative, $n = 78$	United Kingdom	Psychological well-being of staff working with people who have challenging behaviour Higher anxiety among staff working in	No difference in demand or depression. Challenging Behaviour emerged as the best predictor of anxiety, with Job Demands

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Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Kile (2014); Quantitative, $n = 222$.	United States	houses where clients had challenging behaviours – also felt less supported, less clear about identifying risky situations and lower job satisfaction. Relationship among relational coping and reciprocity in direct care staffing services for adults with developmental disabilities and challenging behavior.	second best predictor. Together, these accounted for 21% of the variance. Depression was the best predictor of Staff Support. Low to moderate levels of burnout found. Challenging behaviour related to higher emotional exhaustion and depersonalisation. Emotion-focused coping was related to emotional exhaustion and depersonalisation. Problem focused coping related to increased personal accomplishment. Relationship-focused most effective; related to higher personal accomplishment. Emotional exhaustion related to lack of reciprocity (across clients, colleagues, and organization). Inequity within the org related to all three burnout measures. Relationship between challenging behavior and burnout weaker when staff felt they had invested more in clients and organization than the reverse.
Ko et al. (2012); Quantitative, $n = 169$.	Canada	Burnout in summer camp workers for ID	Frequent exposure to severe aggression was related to higher levels of emotional exhaustion and lower personal accomplishment.
Koritsas et al. (2010); Qualitative, $n = 11$; Quantitative, $n = 191$.	Australia	Exposure to challenging behavior and support worker/house supervisor well-being.	Qualitative research found awareness of triggers for challenging and that staff implemented strategies to manage (mostly reactive). Most were exposed to CB (almost half had experienced injury; over half had seen injury in others). Depression related to reduced decision latitude, lower education, and exposure to challenging behaviour. Stress was predicted by exposure to challenging behaviour, lower education, and decision latitude. Emotional exhaustion associated with higher psychological job demands and more exposure to challenging behaviour. Personal accomplishment increased as decision latitude increased
Kowalski et al. (2010); Quantitative, $n = 175$.	Germany	Associations between emotional exhaustion, social capital, workload, and latitude in decision-making among professionals working with people with disabilities.	Workload, latitude in decision-making and being of a male gender were all significant predictors of emotional exhaustion in this study. The strongest inter-correlations between professional experience, age, and job tenure. Social capital was inversely correlated with emotional exhaustion; the lower the social capital in the organization perceived by an employee, the higher the emotional exhaustion.
Kozak et al. (2013); Quantitative, $n = 409$.	Germany	Psychosocial work-related predictors and consequences of personal burnout among staff working with people with intellectual disabilities.	Personal burnout related to work-privacy conflict, emotional demands, role conflict, job insecurity, and feedback (49%). Higher burnout related to higher intention to leave and stress symptoms. Lower burnout related to job satisfaction, good health, and higher life satisfaction.
Kurz et al. (2014); Quantitative, $n = 128$	United States	Mediating the relation between workplace stressors and distress in ID support staff: Comparison	Psychological flexibility (defined as 'Willingness to experience difficult thoughts and emotions, and to

(Continued)

Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Lahana <i>et al.</i> (2017); Quantitative, <i>n</i> = 180.	Greece	between the roles of psychological inflexibility and coping styles. Burnout among nurses working in social welfare centres for the disabled.	relinquish one's efforts to control the same' mediated the impact of workplace demands on psychological distress. Burnout levels were found to be high. Marital status, routine, and supervisor relationship and professional experienced related to emotional exhaustion and depersonalization.
Langdon <i>et al.</i> (2007); Quantitative, <i>n</i> = 27.	United Kingdom	Staff working with people who have intellectual disabilities within secure hospitals: expressed emotion and its relationship to burnout, stress and coping.	Relationship with colleagues was associated with all three dimensions of burnout syndrome. Quality of relations with supervisors affected both Emotional Exhaustion and Personal Achievement. Sixty three percent coded as having high expressed emotion. These participants reported significantly higher levels of depersonalization and lower levels of personal accomplishment.
Lee <i>et al.</i> (2009); Quantitative, <i>n</i> = 1243.	Taiwan	Extrinsic high-effort and low-reward conditions at work among institutional staff caring for people with intellectual disabilities in Taiwan.	15% - low effort/low reward; 35.9% - low effort/high reward; 17.9% - high effort/high reward; 31.1% - high effort/low reward. Perceived job support, control, demands, and stress related to high effort/low reward at work.
Lernihan and Sweeney (2010); Quantitative, <i>n</i> = 69	Ireland	Measuring levels of burnout among care workers.	Thirty percent reported moderate to high emotional exhaustion, most did not report high depersonalization. Two-thirds higher in personal accomplishment. Emotional exhaustion significantly higher in residential compared to day care staff.
Leyin and Wakerly (2007)	United Kingdom	Staff support, staff stress and job satisfaction in working with people with learning disabilities and challenging behaviors.	Overall support was relatively high for both formal and informal supports, only the informal supports from colleagues were negatively correlated with ratings of work-related stress. Levels of stress could not be inferred from overall ratings of job satisfaction or vice versa. Identified a potentially vulnerable group of staff who reported relatively high job satisfaction but also some degree of stress.
Lin <i>et al.</i> (2009); Quantitative, <i>n</i> = 46 (23 native and 23 non-native)	Taiwan	Job strain and determinants in staff working in institutions for people with intellectual disabilities in Taiwan: a test of the job demand-control-support model.	Native workers had higher burnout (personal and work-related). Job satisfaction slightly higher among foreign compared to native workers (non-significant).
Lundström <i>et al.</i> (2007); Quantitative, <i>n</i> = 112.	Sweden	Personality impact on experiences of strain among staff exposed to violence in care of people with intellectual disabilities.	No evidence of direct influence of personality variables on exposure to violence. Personality dimensions of harm avoidance and self-directedness were related to increased burnout, tedium, emotional exhaustion, and depersonalization.
Lundström <i>et al.</i> (2007); Quantitative, <i>n</i> = 120.	Sweden	Prevalence of violence and its relation to caregivers' demographics and emotional reactions – an explorative study of caregivers working in group homes for persons with learning disabilities.	Thirty one percent exposed to violence during the preceding year with physical violence most common. Daytime work was the only independent factor in a regression model predicting violence towards the caregivers. Of those exposed to violence; violent incidents occurred several times a week (41%) while 24% (7.5% of all caregivers) reported daily exposure to violence. Seventy three

(Continued)

Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Lunsky et al. (2014); Quantitative, $n = 926$.	Canada	Perceptions of positive contributions and burnout in community developmental disability workers.	percent of caregivers reported that the violent incidents were only managed by internal discussions with colleagues. Only two (5.4%) of the exposed caregivers reported personal support from the manager. The most frequently reported types of emotional reactions to violence were feelings of powerlessness, insufficiency, and anger. Factor analysis identified two factors: General positive contributions and positive work motivation. Positive work motivation associated with higher levels of personal accomplishment. Lend support to the idea of need to consider both positive and negative aspects of work life.
Mascha (2007); Quantitative, $n = 36$	United Kingdom	Staff morale in day care centres for adults with intellectual disabilities.	High levels of job satisfaction, moderate levels of emotional exhaustion, and personal accomplishment. Wishful thinking related to lower levels of role clarity and more emotional exhaustion, as well as lower levels of lack of personal accomplishment. Staff who were satisfied with supervision reported higher role clarity and job satisfaction and lower levels of intended turnover and emotional exhaustion. Emotional exhaustion also highly associated with lower levels of satisfaction with support, role clarity, and overall job satisfaction. Role clarity and job satisfaction related to satisfaction with support and negatively related to intended turnover.
Mitchell and Hastings (2001); Quantitative, $n = 83$.	United States	Coping, burnout, and emotion in staff working in community services for people with challenging behaviors.	Adaptive coping more frequent than maladaptive coping when faced with challenging behavior. Disengagement, adaptive coping and emotional reaction to aggressive behaviour predicted burnout. Negative emotional reaction to aggressive behaviour predicted emotional exhaustion and depersonalization.
Mills and Rose (2011); Quantitative, $n = 78$.	United Kingdom	The relationship between challenging behavior, burnout, and cognitive variables in staff working with people who have intellectual disabilities.	Relationship between challenging behavior and burnout mediated by 'fear of potential assault'. Higher challenging behaviour related to greater fear of assault. Greater fear of assault and challenging behavior related to increased burnout (on all measures). Cognitive variables of consequence carer/control carer/emotional representation related to burnout. 'Fear of assault' mediated the relationship between aggressive behavior and emotional exhaustion and depersonalization. 'Emotional representation' mediated relationship between CB and depersonalization.
Mutkins et al. (2011); Quantitative, $n = 80$.	Australia	Stress, depression, workplace, and social supports and burnout in intellectual disability support staff.	Depression and lower perceived organisational support related to higher worse emotional exhaustion and depersonalization. Less social support related to lower

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Table 1 (*Continued*)

Authors, methods, sample	Country	Study Title	Summary of findings
			personal accomplishment. Satisfaction with social support moderated between psychological stress and burnout.
Outar and Rose (2017); Quantitative, $n = 70$.	United Kingdom	Is there a relationship between role identity, work demands, and burnout in direct care staff working with individuals with intellectual disability.	Demands related to emotional exhaustion and depersonalization; role identity related to personal accomplishment and self-determination.
Robertson <i>et al.</i> (2005); Quantitative, $n = 157$.	United Kingdom	Staff stress and morale in community-based settings for people with intellectual disabilities and challenging behavior: a brief report.	Congregate settings not associated with higher levels of stress. Overall, over a quarter of staff reached criterion on the General Health Questionnaire-12 for experiencing emotional distress and over a third were likely to actively seek new employment in the next year. The greatest perceived sources of stress were lack of resources and lack of staff support. The lowest level of satisfaction was with the rate of pay. Those in non-congregate settings reported greater perceived stress due to lack of procedures to deal with challenging behaviour.
Rose (1993); Quantitative, $n = 112$.	United Kingdom	Stress and staff in residential settings: the move from hospital to the community.	Hospital and group home staff reported similar, relatively high levels of strain. Community unit group reported significantly lower levels of strain.
Rose (1999); Quantitative, $n = 216$.	United Kingdom	Stress and residential staff who work with people who have an intellectual disability: a factor analytic study.	Development of a questionnaire and collection of data.
Rose and Schelewa-Davies (1997); Quantitative, $n = 29$.	United Kingdom	The relationship between staff stress and team climate in residential services.	Team climate, namely greater support for innovation, and task orientation (commitment to high performance) associated with reduced staff stress.
Rose <i>et al.</i> (2003); Quantitative, $n = 131$.	United Kingdom	Staff who work with people who have intellectual disabilities: the importance of personality.	Higher demands and lower support linked to poorer psychological well-being. Higher neuroticism and lower extraversion related to higher stress. Practical coping not related to work strain, though wishful thinking related to higher stress. Neuroticism and wishful thinking moderated relationship between demands and higher stress.
Rose <i>et al.</i> (2004); Two quantitative studies, $n = 101$ and 99, respectively.	United Kingdom	Negative emotional reactions to challenging behaviour and staff burnout (replication studies of a previous study by Mitchell and Hastings, 2001).	Supported the previous study though no causal links identified. Both studies found relationship between negation emotional reaction to challenging behaviour and emotional exhaustion and depersonalization (not personal accomplishment).
Rose and Rose (2005); Quantitative, $n = 107$.	United Kingdom	Staff in services for people with intellectual disabilities: the impact of stress on attributions of challenging behavior.	Although staff reported high stress levels and moderate burnout, this did not appear to have any relationship to their reporting of thoughts and feelings, and propensity to help regarding challenging behavior in study vignettes.
Rose <i>et al.</i> (2006); Quantitative, $n = 72$.	United Kingdom	Attitudes of direct care staff towards external professionals, team climate, and psychological well-being: a pilot study.	Care staff attitudes towards professionals and levels of team climate related to psychological well-being.
Rose and Cleary (2007); Quantitative, $n = 87$.	United Kingdom	Care staff perceptions of challenging behavior and fear of assault.	Investigated fear of assault in relation to exposure to challenging behavior. The extent to which a social

(Continued)

Table 1 (*Continued*)

Authors, methods, sample	Country	Study Title	Summary of findings
Rose <i>et al.</i> (2010); Quantitative, <i>n</i> = 242.	United Kingdom	Reciprocity and burnout in direct care staff.	psychological model of fear of assault could be generalised to care staff was tested. Staff exposed to more challenging behavior had high a fear of assault. 'Under benefit' in relationships with service users, colleagues, and the organisation related to emotional exhaustion. 'Under benefit' in organisational and staff relationships related to increased depersonalization.
Rose <i>et al.</i> (2013); Quantitative, <i>n</i> = 78.	United Kingdom	Client characteristics, organizational variables, and burnout in care staff: The mediating role of fear of assault.	Relationship between challenging behavior and emotional exhaustion fully mediated by fear of assault. Relationship between emotional exhaustion and experienced safety also fully mediated by fear of assault.
Rose <i>et al.</i> (1998) Quantitative, <i>n</i> = 33	United Kingdom	Investigating the relationship between stress and worker behaviour. Residential group homes were classified as 'low stress' and four as 'high stress'. Staff in the high stress homes reported greater demands and less support than those in the low stress homes.	Higher levels of interaction were found between staff and residents in low stress houses, whereas activities in higher-stress group homes appeared to be more community oriented.
Shaddock <i>et al.</i> (1998); Quantitative, <i>n</i> = 173.	Australia	Factors associated with burnout in workers in residential facilities for people with an intellectual disability.	Association between the burnout and variables such as religious affiliation, personal relationships, perceived skill levels, job satisfaction, case-loads, decision-making, and social support. Significant associations were found between burnout scores and some demographic variables. Low burnout scores were associated with some features of the work situation.
Shed <i>et al.</i> (2016); Quantitative, <i>n</i> = 86.	United Kingdom	Investigating predictors and moderators of burnout in staff working in services for people with intellectual disabilities: the role of emotional intelligence, exposure to violence, and self-efficacy.	Exposure to violence and low self-efficacy predicted emotional exhaustion and depersonalization. Self-efficacy moderated the relationship between exposure to violence, emotional exhaustion, and depersonalization.
Smithson-Sims (1996); Quantitative, <i>n</i> = 105.	United Kingdom	Coping and stress: unqualified direct-care staff working with challenging behaviour clients in learning disability residential settings.	Both emotion- and problem-focused coping strategies used when dealing with the demands of the workplace. Significant association between use of problem-focused coping strategies and lower levels of stress and incidence of stress caseness. Also significant association between use of predominantly emotion-focused coping strategies and higher levels of stress and incidence of stress caseness.
Smyth <i>et al.</i> (2015); Quantitative, <i>n</i> = 138.	United Kingdom	An analysis of stress, burnout, and work commitment among disability support staff in the UK.	Exposure to challenging behavior was associated with perceived stress and emotional exhaustion. Perceived stress and burnout were associated with work commitment. Frequency and severity of aggressive/destructive behavior predicted depersonalization. Greater perceived stress was a predictor of depersonalization and emotional exhaustion.
Stube (2016); Quantitative, <i>n</i> = 201.	United States	The prediction of staff burnout indicators in IDD community services by staff depression, work functioning, and working alliance.	Depressions, working alliance, and work functioning all related to difference aspect of burnout (no interaction effect for working alliance)

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Table 1 (Continued)

Authors, methods, sample	Country	Study Title	Summary of findings
Tartakovsky <i>et al.</i> (2013); Quantitative, $n = 222$.	Israel	Staff members of community services for people with intellectual disability and severe mental illness: values, attitudes, and burnout.	Depression predicted all burnout measures (emotional exhaustion strongest). Work functioning predicted emotional exhaustion and depersonalization (depersonalization strongest). Working alliance predicted depersonalization (best predictor of personal accomplishment). Higher preference for self-transcendence values and a lower preference for the self-enhancement values associated with a lower level of depersonalization and a higher sense of professional accomplishment. A more positive attitude toward empowerment, a higher sense of similarity, and a more negative attitude toward exclusion associated with lower burnout.
Thomas and Rose (2010); Quantitative, $n = 102$.	United Kingdom	The relationship between reciprocity and the emotional and behavioral responses of staff.	A lack of reciprocity in care staff relationships related to burnout. Emotional exhaustion and depersonalization were also found to be related to negative affect, positive emotion, optimism, and helping behaviors; while personal accomplishment was related to negative mood, positive emotion, optimism, and helping behaviour.
Van Dierendonck <i>et al.</i> (1996); Quantitative, $n = 301$ ($n = 189$ in care of mentally disabled)	Netherlands	Inequity Among Human Service Professionals: Measurement and Relation to Burnout Majority of professionals felt under-benefited in relation with recipients as well as in relation with their organization.	Inequity was curvilinearly related to burnout. Staff who felt over-benefited experienced more burnout than colleagues who felt under-benefited.
Van Dierendonck <i>et al.</i> (2001); Quantitative, $n = 245$ ($n = 125$ in care of mentally disabled)	Netherlands	Burnout and inequity among human service professionals; A longitudinal study. Inequity affected the central component of burnout (emotional exhaustion).	This relationship was curvilinear. Feeling more deprived and feeling more advantaged resulted in higher future emotional exhaustion levels. No longitudinal relation between inequity and depersonalization.
Vassos and Nankervis (2012); Quantitative, $n = 108$.	Australian	Investigating the importance of various individual, interpersonal, organisational, and demographic variables when predicting job burnout in disability support workers.	Challenging behavior (interpersonal), workload (individual), supervisor support (individual), work-home conflict (individual), job feedback (individual), role ambiguity (organisational), low job status (organisational), role conflict (organisational), gender (demographic), and work hours (demographic) all predicted one or more of the facets of burnout.
Vassos (2013); Quantitative, $n = 258$.	Australia	Engagement and burnout in disability support staff as predicted by JDR model.	Role ambiguity related to all three measures of engagement and burnout. Accounted for most unique variance in three scores of engagement and PA. Resources (job feedback) related to engagement and all burnout measures. First to explore engagement at work.
Vassos <i>et al.</i> (2017); Quantitative, $n = 325$.	Australia	Can the JDR-S model predict stress in disability workers?	High workload, low control, and low colleague support related to higher burnout and lower engagement. High support and increased control reduced the impact of workload on these variables.
Wanless and Jahoda (2002); Quantitative, $n = 38$.	United Kingdom	Responses of staff towards people with mild to moderate intellectual disability who behave aggressively: a cognitive emotional analysis.	More negative emotions to real aggression versus hypothetical vignettes. Failed to support Weiner's model of aggression.

negative staff attributions of and reactions to challenging behavior; self-efficacy; support; and training.

Negative staff reactions to challenging behavior

Mitchell and Hastings (2001) found that negative emotional reactions to aggressive behavior predicted emotional exhaustion and depersonalization. Depersonalization was predicted by depressive and angry responses to such behavior, while emotional exhaustion was predicted by both depressive and angry responses and coping through disengagement. Higher personal achievement was predicted by low use of disengagement coping and higher use of adaptive coping; though this link was not causal. Rose *et al.* (2004) replicated these findings through two studies which explored the relationship between negative emotional reactions to challenging behavior and burnout among disability support workers. Their first study found that both depressive/angry emotional responses and fearful/anxious emotional responses were associated with increased depersonalization and emotional exhaustion. Their second study replicated the finding that negative emotional reactions to challenging behavior predicted emotional exhaustion and depersonalization.

Increased exposure to challenging behavior is associated with increased 'fear of assault' on the part of care workers, which may exacerbate the negative effects of exposure to violence in the workplace (Rose and Cleary, 2007). Mills and Rose (2011) found that the relationship between challenging behavior and burnout was mediated by 'fear of potential assault. Higher levels of challenging behavior were related to increased fear of assault, which in turn was associated with increased emotional exhaustion, depersonalization, and less personal accomplishment. The cognitive variables of 'consequence carer' and 'control carer' (i.e. the extent to which staff believe challenging behavior will elicit negative consequences for themselves or client) and emotional representation (i.e. the extent to which challenging behavior may elicit negative emotion in the carer) were also related to higher burnout. 'Fear of potential assault' mediated the relationship between aggressive behavior and emotional exhaustion and depersonalization, while 'emotional representation' mediated the relationship between challenging behavior and depersonalization. A later study (Rose *et al.* 2013) which included data from this study, found that 'fear of potential assault' fully mediated the relationship between challenging behavior and emotional exhaustion and the relationship between emotional exhaustion and 'experienced safety' (an organizational variable) among direct care workers.

Attribution of challenging behavior

Staff perceptions of the cause of challenging behavior have been linked to negative emotional outcomes

(Bromley and Emerson 1995, Dagnan *et al.* 1998, Phillips and Rose, 2010). Snow *et al.* (2007) identified that higher levels of emotional exhaustion were related to less attributions of stable behavior while Stanley and Standen (2000) found that staff experienced greater negative emotions in response to aggression, which they considered to be controllable as opposed to self-harm, and was not as related to burnout. The function and type of behavior is also relevant here (Dilworth *et al.* 2011). Rose and Rose (2005) for example explored the impact of staff attributions of challenging behavior using Weiner's (1988) model of helping behavior. This model posits that staff attributions of challenging behavior as internal, stable, and controllable will elicit more negative responses from such staff and a reduced tendency to help. Though this study did find that a stable attribution of challenging behavior was associated with increased negative emotion, the model was poorly supported and had limited explanatory power, highlighting the complexity of the relationship between challenging behavior and the well-being of care workers. Two later studies (Bailey *et al.* 2006, Wanless and Jahoda 2002) also failed to find support for this model, although Bailey *et al.* (2006) did identify that internal, stable, and uncontrollable attributions of challenging behavior (including self-injury) were related to negative emotion responses among their sample.

Severity of challenging behavior

Finally, Hensel *et al.* (2012) found nearly all of their sample of care workers in hospital and community intellectual disability settings were exposure to aggression from clients in the previous six months, which was related to increased burnout (specifically emotional exhaustion and depersonalization). A follow up of this research (Hensel *et al.* 2014) examined the mediating effect of severity and perceived self-efficacy through matched pair analyses. Hospital staff experienced more severe aggression from clients, which partially mediated the relationship between exposure to aggression and increased emotional exhaustion.

Reciprocity

Reciprocity refers to relative investments and outcomes in social relationships (Adams 1965). Inequity in social relationships with clients, colleagues, and their organization (in terms of a discrepancy between the support or effort people want and what they receive) have been identified as significant sources of stress for professional care staff within the intellectual disability sector (e.g. Kile 2014, Thomas and Rose 2010). Disley *et al.* (2009) reviewed the available evidence in relation to the impact of inequity on staff stress, including three studies which exclusively surveyed staff in the intellectual disability field. Van Yperen *et al.* (1992) found

that 37% of ID nurses felt often or regularly ‘under-benefitted’ (i.e. receiving less effort from clients than desired) in their relationship with service users, which was related to all three dimensions of burnout. A later replication of this study (Van Yperen 1995) also identified that inequity between staff and the organization was related to depersonalization and emotional exhaustion, which was also related to higher intention to quit. Two later studies (Thomas and Rose 2010, Rose *et al.* 2010) also found that a lack of reciprocity in the relationships care staff had with the service users, their work colleagues and their organization was found to be related to increased levels of burnout.

Interestingly van Dierendonck (1996) found that staff who felt that services users contributed more to their relationship reported higher burnout than those who felt the service users contributed less. Similar findings were reported for staff relationships with their organization. These findings were supported by a later longitudinal study conducted van Dierendonck *et al.* (2001) which found that staff who felt under or over-benefitted at the start of the study reported greater burnout one year on; though interestingly at the end of the study those who felt under-benefitted at start were less emotionally exhausted than those who perceived their relationship to be equal. Similarly Kile (2014) also found the relationship between challenging behavior and burnout was weaker when staff perceived that they had invested more in their relationships with clients and their organization than their clients and organization had invested in them. It may be the case therefore that staff who are burnt-out perceive that they contribute less effort to their relationship with services users and their organizations than they receive.

Coping and stress

A particular strength of the literature included in this review is that much of the research is underpinned by validated work-stress theories (Devereux *et al.* 2009b). Two findings are notable in this regard. Firstly, several studies have indicated that coping styles of direct care workers (e.g. problem-solving, emotion-focused, or wishful thinking) are associated with perceived stress and well-being (Hatton *et al.* 1995, 1999, Mitchell and Hastings 2001). Secondly, in line with established work-stress theories such as the Job-Demand-Control Model (JDC; Karasek 1979) excessive workplace demands, a low level control, and a lack of support have been shown to be related to higher levels of stress and burnout among intellectual disability care workers (Rose 1993; Elliot and Rose 1997; Dyer and Quine, 1998; Rose *et al.* 1998, Rose 1999; Hatton *et al.* 1999, Innstrand *et al.* 2004, Harries *et al.* 2015, Stube 2016).

Demands, control, and support

Increased workload is predictive of greater emotional exhaustion and depersonalization (Gardner and Rose 1994, Gray-Stanley and Muramatsu 2011, Kowalski *et al.* 2010, Vassos and Nankervis 2012). Vassos *et al.* (2017) found that the combination of a high workload, low control, and low colleague support were related to higher burnout and lower engagement among care workers. However increased job control and colleague support were found to reduce the negative impact of workload on staff burnout and engagement.

A lack of influence over work decisions is linked with higher emotional exhaustion and decreased personal accomplishment (Hatton and Emerson 1993, Ford and Honnor 2000, Gray-Stanley and Muramatsu 2011, Gray and Muramatsu, 2013). Dyer and Quine (1998) identified a lack of participation in decision-making as a significant demand encountered by care workers in a learning disability service, while Corrigan (1993) identified a lack of administrative control as a prominent stressor in a study of care workers at developmental and state hospitals. Koritsas *et al.* (2010) reported that increased depression and stress and lower personal accomplishment were associated with reduced decision latitude, while emotional exhaustion associated with higher psychological job demands. Judd *et al.* (2017) identified limited decision-making power as a challenge of working in this sector and that staff often sought support to help them manage their stress. Rose *et al.* (2006) found that active participation in decision making related to improved psychological well-being, while Kowalski *et al.* (2010) reported that greater latitude in decision making was associated with reduced emotional exhaustion.

Support from supervisors and colleagues can exert a meaningful impact on the stress and burnout experienced by direct care staff in the intellectual disability sector (Dyer and Quine 1998, Harris and Rose 2002, Howard *et al.* (2009), Leyin and Wakerly 2007, Lahana *et al.* 2017, Robertson *et al.* 2005, Rose and Cleary 2007). Ito *et al.* (1999) examined the experience of burnout of care workers in a Japanese national study. Lower burnout scores were found for staff who had supervisors available for consultation about work or personal problems compared to staff who felt they did not. Rose and Schelewa-Davies (1997) found that ‘team climate’ (namely support for innovation and commitment to high performance) was associated with reduced staff stress, while Devereux *et al.* (2009a) reported that social support at work could moderate the relationship between workplace demands and personal accomplishment. Hatton and Emerson (1993) identified that support from other staff, perceived organizational democracy and a good ‘fit’ between the attitude and aims of staff and those of the organization were predictive of perceived stress, job satisfaction, overall life satisfaction, and intention to leave the organization. A

later study by Hatton *et al.* (1999) found that job strain was related to a lack of staff support, while work satisfaction was associated with support from staff and colleagues. Finally, Mutkins *et al.* (2011) found that lower perceived organizational support was related to increased symptoms of burnout (specifically greater emotional exhaustion and depersonalization). Decreased social support was related to lower personal accomplishment, while satisfaction with social support was found to moderate the relationship between stress and burnout.

Coping styles and stress

Research evidence also suggests that the coping styles of direct care workers (e.g. problem-solving, emotion-focused, or wishful thinking) are associated with perceived stress and well-being (Hatton *et al.* 1995, 1999, Kile, 2014, Mitchell and Hastings 2001). Devereux *et al.* (2009a) explored the impact of coping styles on the relationship between workplace demands and burnout with a sample of care workers over a 22 month period. Higher demands were found to be related to increased emotional exhaustion, which was partially mediated by 'wishful thinking', a coping style characterized by a focus on what may be pleasing to imagine rather than rationality or available evidence. Practical coping did not effect this relationship but was predictive of personal accomplishment. Longitudinal analysis did not find that perceived work demands, wishful thinking, or practical coping predicted emotional exhaustion over time.

Two additional studies (Hatton *et al.* 1995, 1999) found that wishful thinking was associated with increased job stress and job strain among disability workers, while Rose *et al.* (2003) identified that the use of practical coping was not related to worker stress though wishful thinking was associated with poorer psychological well-being. Wishful thinking was also found to moderate the relationship between demands and stress (higher use of wishful thinking of a coping strategy was associated with poorer psychological well-being in the case of higher demands). Smithson-Sims (1996) explored the coping strategies of care workers in a learning disability setting. Problem-focused coping was related to lower levels of stress and reduced incidence of stress, while emotion-focused coping was related to higher perceived stress. Gil-Monte (2012) found that guilt (frequently defined in an intellectual disability setting as negative thoughts about other staff and negative/cynical way they treated them) was found to moderate the relationship between depersonalization and depression and may have role in burnout.

Role issues

In line with Devereux *et al.*'s (2009b) analysis of person-environment fit, role issues such as ambiguity and

conflict have been shown to play a part in the work-related stress experienced by direct care workers in the intellectual disability field (Dyer and Quine 1998; Harris and Rose 2002, Lin *et al.* 2009). Lee *et al.* (2009) explored the impact of effort and reward at work through a national study of intellectual disability care workers in Taiwan. Nearly one-third of workers were identified as working in a 'high effort-low reward' position which was related to poorer perceived job support and control and higher levels of job demands and stress. Hatton and Emerson (1993) found that the closer the 'fit' between the attitudes and aims of staff and their organization was predictive of perceived stress, job satisfaction, overall life satisfaction, and likelihood of a worker leaving their position.

Role ambiguity is related to work-related stress and strain (Hatton *et al.* 1995; 1999). Gil-Monte and Piero (1998) found that role ambiguity and self-confidence were predictive of personal accomplishment, with self-confidence moderating this relationship. Role conflict was predictive of emotional exhaustion, a finding replicated by Vassos *et al.* (2012), who also identified that work-home conflict was related to emotional exhaustion and depersonalization. A later study (Vassos *et al.* 2013) identified that role ambiguity was related to all three measures of burnout and engagement, and was the strongest predictor of personal accomplishment.

Similar to the relationship between staff support and burnout, those who report satisfaction with the supervision levels provided to them also report higher levels of role clarity and job satisfaction and lower levels of intended turnover (Mascha 2007). Role clarity was also positively related to job satisfaction and negatively related to intended turnover. Figueiredo-Ferraz *et al.* (2012) found that role clarity and social support at work can play a role in preventing 'mobbing' (i.e. interpersonal aggression between workers) while role ambiguity may encourage it. Mobbing was found to be related to negative employee health outcomes and of intended absenteeism. The long-term negative impact of mobbing on the depressive symptoms among such workers was also indicated in a longitudinal study (Figueiredo-Ferraz *et al.* 2015). Kozak *et al.* (2013) reported that job insecurity and role conflict were predictive of personal levels of burnout, a finding replicated by Robertson *et al.* (2015).

Direct care workers versus supervisors

Edwards and Miltenberger (1991) found greater levels of emotional exhaustion and reduced personal accomplishment among supervisors compared to direct care workers in community residential setting, while Alexander and Hegarty (2000) also found higher stress levels among senior staff members compared to direct care workers in a community home. For day care workers, issues included a shortage of staff, medical

problems, shift work, morale, team issues, and the feeling that they were ‘always on’. For senior staff stressors were demands, bad attitude, medical administration, staff issues, autonomy, and demands from others. Colleagues were the reported main source of support. Similarly Rose *et al.* (2000) found that managers experienced more pressure and anxiety, had less support, and reported more sources of stress than direct care workers in group homes for persons with intellectual disability. Responsibility and relationships with others was found to be more of an issue for managers than direct care workers. In contrast Ito *et al.* (1999), through their national survey of intellectual disability workers in Japan, found that burnout higher among direct care staff compared to facility director or middle managers.

Setting

A limited number of studies compared staff stress and well-being across different care settings, with some evidence to indicate poorer staff outcomes in residential and institutional settings. Aitken and Schloss (1994), for example found that stress levels among staff were higher in an institutional setting compared to community setting, while Chung and Corbett (1998) reported that intellectual disability nurses in hospital-based units experienced more severe challenging behavior, complained more, were less satisfied with pay, engaged in less client contact, were more likely to feel their training was inadequate, and experienced more emotional exhaustion and depersonalization than those based in community units. Regression analysis indicated however that this may be due more to management issues rather than client issues; a replication of a previous finding made by the authors in an earlier pilot study (Chung *et al.* 1996). Rose (1993) found that levels of occupational stress and strain were significantly higher in hospital and group home staff compared to those working in a community unit setting, though a later study (Rose *et al.* 1994) found no difference in reported stress between group and community unit staff. Howard *et al.* (2009) found that staff in medium-secure services was exposed to more violence than staff in community services, though staff in the medium security facility had a lower fear of violence and higher self-efficacy for managing difficult behavior. Blumenthal *et al.* (1999) found that charity staff were more likely to view their organization positively and rated their emotional exhaustion as significantly lower than NHS trust staff in disability services. Larnihan and Sweeney (2010) found that residential staff experienced significantly levels of emotional exhaustion than day staff working with clients with learning and communication disabilities.

Individual differences and stress

There is some (mixed) evidence that gender is related to stress. Kozak *et al.* (2013) found that females had

higher levels of stress, though Vassos *et al.* (2012) reported that males were more stressed and Kowalski *et al.* (2010) reported that male staff were four times more likely to be at risk of emotional exhaustion. This study also highlighted that workers aged between 30–39 experienced higher levels of burnout than younger staff, while Hatton *et al.* (1999) found that older age was related to higher levels of work stress. Vassos and Nankervis (2012) found that full-time workers experienced more burnout than part-time workers, though Devereux *et al.* (2009a) reported that part-time workers scored lower on personal accomplishment. Lin *et al.* (2009) found native workers in a Taiwanese institution for persons with intellectual disability experienced greater burnout compared to foreign workers. Finally Shaddock *et al.* (1998) found that burnout scores were related to demographic variables (e.g. practice of religion was associated with low burnout scores) and some features of the work situation (e.g. job satisfaction and lower burnout).

There is some evidence that personality is a factor in the experience of stress and burnout in this sector (Suls and Martin 2005). Rose *et al.* (2003) found that higher neuroticism and lower extraversion were related to poorer psychological well-being among intellectual disability workers. Higher neuroticism was linked to poorer well-being in the case of high job demands. Chung and Harding (2009) found that high neuroticism predicted high levels of emotional exhaustion and lower personal accomplishment, with the converse found for extraversion. Higher conscientiousness predicted higher levels of depersonalization (this was moderated by agreeableness) while neuroticism and extraversion moderated the relationship between challenging behavior and personal accomplishment. Finally, Lundström *et al.* (2007) found that personality dimensions of harm avoidance and self-directedness (e.g. pessimism, worrying, shyness, fatigue, irresponsibility and ill-discipline, and a lack of impulsive control) were related to burnout, tedium, emotional exhaustion, and depersonalization among intellectual disability care workers.

Positive aspects of intellectual disability care work

An important finding that also emerged from this review was that staff engaged in intellectual disability care work report both positive and negative aspects of their professional practice (Hastings and Horne, 2004), including the development of new skills and abilities by clients; the achievement of developmental milestones, and the expression of appreciation from clients, their families, and their organization (Mascha 2007). Lunskey *et al.* (2014) for example found that positive work motivation was associated with high levels of personal accomplishment and both positive and negative aspects of working life in this sector should be considered.

Positive aspects of intellectual disability care work may have an important role in enabling workers to balance or buffer against the negative aspects of their workplace.

Rose *et al.* (2000) found that managers in a group home setting experienced greater job satisfaction than direct care workers despite reporting greater pressure and anxiety, and more sources of stress. Indeed intellectual disability care workers may experience high levels of job satisfaction and work-related stress simultaneously (Leyin and Wakerly 2007). For example, Ineland *et al.* explored sources of job satisfaction among Swedish care workers through quantitative and qualitative analysis of survey data. Content analysis of open-ended data (reported in Sauer 2017) highlighted the concept of plurality - although the majority of staff experienced a heavy workload and psychological strain, they also experienced high job satisfaction.

Hickey (2014) suggests that prosocial motivation (i.e. altruistic behavior) may moderate or buffer against job stress and burnout among direct care workers. It was identified that depersonalization was lower for staff with high levels of prosocial (altruistic) motivation and especially so in cases where staff had high levels of emotional exhaustion. Finally, Judd *et al.* (2017) investigated perceptions of both challenging and enjoyable aspects of care work through a smaller qualitative study with direct care workers. Among the rewards of such work reported by staff were seeing clients develop new skills and express an appreciation for the work of staff. The theme of 'balance' was also identified by the study authors, in which staff experience periods of imbalance when the positive aspects of the job are outweighed by the negative aspects of their work (i.e. the emotionally and physically draining aspects of their work, including challenging client behavior, earning a low income, and having limited power to make decisions).

Conclusion

The results of this scoping review highlight that a complex and varied literature has emerged from this field over the past two decades. With regard to efforts to protecting the well-being of staff in the sector, we draw three key conclusions from these results. Firstly, while it is clear that exposure to challenging behavior is a notable source of stress for those engaged in work with people with intellectual disability, several mediating variables have also been identified. Indeed negative staff reactions (such as 'fear of assault'); low self-efficacy for managing challenging behaviors; the severity of such behavior; and staff understanding of the causes of challenging behaviors are all significant here. The necessity of delivering effective training for staff in the

analysis and management of challenging behavior is therefore further evidenced by this review and would therefore appear to be an essential stress mitigation skill for staff in the sector. Similarly, inequality in the relationships between staff and their clients, their colleagues, and their organization appears to exert a significant impact on the stress and well-being of workers in this sector. Clearly there is a need to identify ways in which reciprocity in such relationships can be maintained or restored.

Secondly, enabling direct care workers to identify maladaptive coping styles (such as wishful thinking) and replace them with more appropriate and effective strategies may also be a valuable avenue of support. Finally, it is also clear that excessive workplace demands, a low level of control and a lack of support have been shown to be related to higher levels of stress and burnout among intellectual disability care workers. This is supportive of the central premise of the Job Demand-Control Model (Karasek 1979). While such work may be inherently demanding and challenging, there is certainly much that may be done to provide workers with increased flexibility and latitude in the workplace (if desired); as well as appropriate levels of support from managers and colleagues. Regular feedback from supervisors and colleagues, for example, may contribute to reduced burnout (Kozak *et al.* 2013). This is also the case with role issues such as conflict and ambiguity at work, which is perhaps a neglected area when it comes to the management of the work-related stress experienced by direct care workers in the intellectual disability field. Promoting congruence of 'fit' between the attitudes and aims of staff and their organization is predictive of the levels of perceived stress and job satisfaction such workers experience and the likelihood of them leaving their position.

In addition, there is some evidence to suggest that those who work in secure residential or institutional settings experience more stress and burnout than those in community settings. The impact of individual difference variables such as gender and age are less clear, however, as the evidence base is more limited and at times conflicted. While additional research may provide more definite conclusions, it is unclear at present how this may actually impact the management of stressor issues.

In line with the framework for the conduct of the scoping review articulated by Arksey and O'Malley (2005), which argues that weight should not be given to certain studies or designs in the overall findings, this review did not seek to assess the quality of the included research. However it is important to acknowledge that much of the research reviewed here was correlational in nature and that there are limitations to such designs (e.g. Grimes and Schulz 2002). Correlational research explores relationships between variables at specific points in time and cannot provide an indication of the

causal direction of such relationships. In addition to quality of data obtained from survey research can be undermined by an unrepresentative sample and demand characteristics.

Finally it is worthy to note the international aspect of this reviewed literature. Though most of the included studies (50%) were conducted in the United Kingdom, several were also conducted in Australia (11.8%), and the USA (10.5%), as well as Spain, Canada, Sweden, South Africa, Germany, Greece, Ireland, and Israel, while national studies have also been conducted in Japan and Taiwan. This diversity of countries reflects the fact that professional care work for persons with intellectual disabilities is a global profession. It also demonstrates that the occupational stress and strain experienced by such workers is an internationally experienced issue in the sector and not culturally specific. Protecting the well-being of workers in the intellectual disabled care sector is important if they are to provide quality care and support to service users. From a staff retention point of view, it should be a significant priority for health and social care policy makers and for service provider organizations.

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